

CLAIMS

What is claimed is:

1. A connector block for interconnecting a plurality of tubular members to form a structure, said connector block comprising:
a generally orthogonal block comprising:
 - a first major planar side;
 - a second major planar side spaced from and parallel to said first major planar side;
 - first, second, and third parallel through-apertures joining said first and second major planar sides and having first, second and third central axis, respectively;
 - a bottom side joining said first and second major planar sides;
 - a left side joining said first and second major sides and normal to said bottom side;
 - a right side parallel to said left side, said right side joining said first and second major sides and normal to said bottom side;
 - an upper side parallel to said bottom side, said upper side joining said first and second major sides;
 - a fourth through-aperture through said block, said fourth aperture extending from said left side to said right side and intercepting said first and second through-apertures;
 - a first non-through-aperture on said upper side and intercepting said third through-aperture; and
 - a second non-through aperture entering said block at an angle intermediate 0 degrees and 90 degrees from said first non-through-aperture.
2. A connector block in accordance with claim 1, wherein said first, second and third through-apertures are substantially parallel.

3. A connector block in accordance with claim 1, wherein all said apertures have a round cross-section with like diameter.
4. A connector block in accordance with claim 3, wherein said first and second central axes are generally equidistant from said bottom side, and spaced therefrom a minimum distance P1.
5. A connector block in accordance with claim 4, wherein said minimum distance P1 is approximately 0.4 times the aperture diameter.
6. A connector block in accordance with claim 3, wherein said second and third central axes are generally equidistant from said left side, and spaced therefrom a minimum distance P2.
7. A connector block in accordance with claim 6, wherein said minimum distance P2 is approximately 0.4 times the aperture diameter.
8. A connector block in accordance with claim 1, wherein said block is formed of an organic polymer.
9. A connector block in accordance with claim 1, wherein said block is formed of one of high density polyethylene (HDPE), polycarbonate, and polypropylene.
10. A connector block in accordance with claim 9, wherein said block includes a substance for resisting absorption of ultraviolet (UV) radiation.
11. A connector block in accordance with claim 1, wherein said intermediate angle is about 20° to about 70°.
12. A connector block in accordance with claim 1, wherein said intermediate angle is about 30° to about 60°.

13. A connector block in accordance with claim 1, wherein said intermediate angle is about 45°.
14. A connector block in accordance with claim 1, further comprising lockscrew pilot holes in said block to intersect with said apertures, whereby screws driven thereinto contact and/or pass into said tubular members inserted into said apertures.
15. A connector block in accordance with claim 13, wherein said lockscrew pilot holes comprise:
 - first and second lockscrew pilot holes entering said bottom side and directed to the intersection of said fourth through-aperture with said first through-aperture and the intersection of said fourth through-aperture with said second through-aperture, respectively;
 - third lockscrew pilot hole entering one of said major sides and directed to the intersection of said third through-aperture and said first non-through-aperture; and
 - fourth lockscrew pilot hole entering one of said major sides and directed to said sixth aperture.
16. A connector block in accordance with claim 1, further comprising an angular side formed by truncating the corner between said upper side and said right side at an angle normal to the central axis of said second non-through-aperture.
17. A connector block in accordance with claim 1, wherein said tubular material comprises one of rigid pipe, rigid tubing, and rigid electrical conduit and is formed from one of metal, plastic, glass, ceramics, and combinations thereof.
18. A lightweight easily assembled/disassembled articulate structure formed of a plurality of sections of tubular material rigidly conjoined by connector blocks in accordance with claim 1.

19. A structure in accordance with claim 18, further comprising a plurality of semirigid panels attached to and covering a portion of said structure.